REMARKS

Claims 1-8 were originally presented for examination. New claims 9-10 have been added. Claim 5 has been amended to correct a typographical error.

Reconsideration of this application, in view of the foregoing amendments and the following remarks, is respectfully requested.

Rejection under 35 USC §112, second paragraph

Claims 3, 4, 7 and 8 are rejected under 35 U.S.C. 112, second paragraph, for containing improper antecedent basis.

Claims 3, 4, 7, and 8 have been amended to remove the improper antecedent basis.

Rejection under 35 USC §102(b)

Claims 1-8 are rejected under 35 U.S.C. 102(b) as being anticipated by Constant (4,228,517). Applicants respectfully traverse these rejections.

To anticipate a claim, the reference must teach each an every element of the claim. *See* MPEP §2131. Constant does not teach each and every element of claim 1. First, in the cited sections, Constant shows an N order recursive filter configured to calculate N output elements using equal number of feedback multipliers. For example, the numbers of feedback multipliers correspond to the number of β coefficients in the delay line 3. Each β coefficient is combined with input X_n to generate the output Y_n and the order of the filter remains the same. Further, Constant distinguishes its filter from the prior art filter disclosed by Freeney by stating that in Freeney, "the output Y_n appears upon application of the input X_n to an N-word delay line using 2N multipliers to obtain coefficients α,β simultaneously." (Col. 5, lines 33-36). The number of order of the feedback multipliers in Constant still remain the same; however, Constant uses two multipliers 6, an 8 instead of 2N (col. 5 lines 42-47). In contrast, claim 1 recites operating the

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IIR filter of order <u>less than n</u> on a <u>time-sharing basis</u> a plurality of times such that said plurality of times multiplied by the order of said IIR filter of order less than n is equal to or greater than n. Constant does not teach this limitation. Accordingly, Constant does not teach each and every limitation of claim 1 and claim 1 is patentably distinguishable from Constant.

Claims 2-4 depend from claim 1 and are patentably distinguishable from Constant for at least the same reasons as claim 1.

Claim 5 has been rejected in the manner of claim 1 therefore, claim 5 and those depend therefrom are patentably distinguishable from Constant for at least the same reasons as claim 1.

Applicant believes this application and the claims herein to be in a condition for allowance. Should the Examiner have further inquiry concerning these matters, please contact the below named attorney for Applicant.

Respectfully submitted,

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